RMRS Rocky Mountain Remediation Services, L.L.C.
protecting the environment

Revision 1

Quality Assurance Program Description (QAPD) RMRS-QAPD-001

APPROVED BY James L McAnally, RMRS President — Date December 20, 1996

APPROVED BY Juan Hernández, RMRS QA Manager — Date 20 DECEMBER 1996

Responsible Organization **RMRS QA** Effective Date **January 1, 1997**

Commitment:

	Print	Sign	Date
ESH&Q	M. Findley	Michael Findley	12/20/96
Environmental Restoration	[illegible]	[illegible]	12/20/96
Waste Management	MARTIN WHEELER	[illegible]	12/20/96
Operations	F.P. HUGHES	[illegible]	12/20/96
Administration	C H CARMEAN	[illegible]	12/20/96
Engineering/ Construction/D&D	POR PR BENNETT W. J. MCANDREW	[illegible]	12/23/96
Technical Assurance	C.C. Pierre	[illegible]	12-20-96
Originator	JOHN BENNETT	[illegible]	12.19.96

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Appendices

1. INTRODUCTION

Rocky Mountain Remediation Services, L L C (RMRS), as a subcontractor to Kaiser-Hill Company L L C (K-H), is responsible for the waste management, environmental restoration, decontamination and decommissioning (D&D), and related engineering and construction activities at the Rocky Flats Environmental Technology Site (Site) The general scope of work is defined and implemented under the provisions of contract no KH00003NS1A

To meet the contractual obligations and assure that the customers of RMRS are receiving products and services that meet their specifications, RMRS has developed this Quality Assurance Program Description (QAPD) that describes roles, responsibilities, and methodologies for ensuring compliance with DOE Order 5700 6C, Quality Assurance (Order), and 10 CFR 830 120, Quality Assurance (Rule) Since the Order and Rule are inclusive of the same criteria, RMRS incorporates the requirements into a single QAPD The primary distinction between the two requirements is the enforcement and applicability Enforcement is defined in 10 CFR 820 Subpart B and F, which indicates the potential remedies afforded DOE up to and including personal criminal prosecution and fines assessed against the company From the perspective of applicability, 10 CFR 830 120 applies only to nuclear facilities/activities Currently, the following hazard category 2 and 3 facilities, managed by RMRS, are considered nuclear facilities and subject to enforcement action under 10 CFR 830 120 (Ref K-H QA Program document in Site Quality Assurance Manual)

Building 569 (Crate Counter)	Building 664 (Waste Storage/Shipping)
Building 991	750/904 Pads (Mixed Waste Storage)
Building 884 (RCRA Unit 13)	Building 964 (Drum Storage, Low Level Hazardous)
Operable Unit 2 (OU2) (903 Pad)	Building 906 (Waste Storage)
Remediation)	RCRA Unit 15 (904 RCRA Unit)
Building 881	Building 881F
Building 883	Building 444
Building 447	Building 448

NOTE *The list of hazard category 2 and 3 facilities as defined in DOE Order 5480 23, Nuclear Safety Analysis Reports, and the description of the Master Activity List are provided to describe the primary areas to which 10 CFR 830 120 will apply Applicability of 10 CFR 830 120 is not limited to hazard category 2 and 3 facilities The Rule is applicable to activities that have the potential for causing radiological harm, without regard to where the radiological risks occur*

In addition to the 10 CFR 830 120 applicability to RMRS facilities and activities defined above, RMRS activities with the potential to cause radiological harm are subject to enforcement action under 10 CFR 835 The affected activities, enforceable under both 10 CFR 830 120 and 10 CFR 835, include environmental restoration activities, engineering, construction and decontamination and decommissioning activities, and waste operations activities, as defined in the Site Master Activity List (MAL)

As more determinations are made with regard to the applicability of 10 CFR 830 120, and as baseline assessments continue, the RMRS QAPD will be modified to reflect the most current decisions concerning applicability in the specific buildings and activities referenced above

This QAPD will be reviewed annually by the organizations indicated on the cover and revised as necessary by the RMRS Quality Assurance (QA) organization Generally, this QAPD was developed using, as guidance, the Site procedure for development of quality assurance plans This QAPD is controlled and distributed under an approved, document control system

2. PURPOSE

This QAPD defines the strategy and controls currently employed and implemented by RMRS to consistently deliver products and services that meet the requirements of customers/stakeholders

The QAPD serves as a map of the controls employed by RMRS Currently, RMRS implements a combination of controls established by the previous contractor and new controls developed and implemented by RMRS and the K-H Team Due to the difference in mission, the program developed and deployed by the previous contractor organization is not specifically aligned or suited to the current and future operational responsibilities of RMRS Accordingly, RMRS monitors program and project scope for effectiveness of controls and develops and implements changes to those controls as resources are made available Known infrastructure deficiencies, related to both DOE Order 5700 6C and 10 CFR 830 120, have been identified and corrective actions delineated through implementation plans submitted to K-H and DOE-RFFO (Ref DOE Correspondence AME TA EDR 08057, November 4 1996) The implementation plans define the required actions, the required budget, and scheduled completion date The deficiencies have been reported the Plant Action Tracking System for tracking to closure Accordingly, this QAPD does not include further implementation tasks or milestones

3. SCOPE

This QAPD is relevant and applicable to the specific operations of RMRS and its subcontractors, and where applicable, to the interface controls between RMRS and K-H, and between RMRS and other K-H subcontractors

As stated in Section C 2 of the RMRS contract (KH00003NS1A), RMRS shall execute all work assigned in the areas of environmental restoration (ER), environmental protection (EP), waste management (WM), related engineering and construction, decontamination and decommissioning, and such other related activities as directed by the K-H Contracting Officer, provided sufficient funds are made available As required, RMRS organizations will develop Letters of Intent, or other agreement based documentation, to state agreed upon methods for interfacing and for delivery of products and services between K-H and other subcontractor organizations

The scope of RMRS's contract, while specifically agreed to and implemented through Site project controls, is specified in the contract as

Management and Administration (RMRS Technical and Administrative Services): RMRS shall implement an innovative and efficient management system for ER/EP/WM projects, and shall implement quality, timely, and cost effective programs and operations, and shall manage the EP/ER/WM projects using integrated program plans provided by the Contractor RMRS shall implement a surveillance and reporting system to ensure compliance with applicable human health, safety, and environmental regulations, consent orders and agreements, and applicable DOE Orders and Standards and quality assurance requirements The RMRS organizations that are categorized as *Management and Administration* interface internally with all other RMRS organizations, and externally with K-H and other subcontractors through contractually specified requirements

Environmental Restoration (ER) Projects: This program includes characterization, assessment, and cleanup of contaminated facilities and surrounding areas which are no longer in use at the Site These efforts will be accomplished by the development and implementation of a program that is compliant with the Interagency Agreement (IAG) of January 22, 1995 [or subsequent agreements, including the Rocky Flats Cleanup Agreement (RFCA)] and the DOE Site Strategic Plan, and is in concert with the DOE, regulatory groups, and other stakeholders The RMRS ER organization interfaces with all RMRS organizations, K-H, and K-H subcontractors

Waste Management (WM) Operations: RMRS will conduct waste management activities in a manner such that similar wastes are managed consistently and in compliance with all applicable regulatory requirements, using controlled and effective integrated programs Such activities are inclusive of (1) timely characterization, appropriate consolidation and segregation of waste, (2) treatment that complies with storage and/or disposal criteria, (3) shipment of waste for treatment, storage and/or disposal as expeditiously as requirements allow and (4) maintenance of adequate permitted waste storage space at the Site to accommodate waste generation and waste backlog The RMRS WM organization interfaces with all RMRS organizations, K-H, and K-H subcontractors

Environmental Protection (RMRS ER Organization): RMRS will ensure that all environmental protection activities are conducted in compliance as necessary with air, water, and ecological monitoring and reporting requirements as described in national, state, and local environmental laws and regulations, as they apply to the Site Environmental protection activities are inclusive of (1) surface water management which entails the operator of the pond systems and monitoring the water quality and quantity, (2) [except for buffer zone access management, this section of the contractually defined scope has been removed from the RMRS scope of work], (3) supporting the NPDES/FFCA Compliance Programs, i e the Drain and Tank Study implementation, pollution prevention plans, and internal waste stream analyses, (4) developing the required environmental reports and NEPA documents necessary to support projects and the sitewide commitments, and

(5) supporting additional efforts such as permitting and regulatory strategies, performing groundwater monitoring, and maintaining environmental data management The RMRS ER organization is responsible for Environmental Protection Activities and interfaces with all RMRS organizations, K-H, and K-H subcontractors

Engineering/Construction Management (RMRS Engineering/Construction/D&D): RMRS will ensure the project implementation of services in construction and construction management for all line items, capital equipment, general plant projects and expense projects related to Environmental and Waste Treatment Operations Such implementation is inclusive of preparation of all conceptual design reports, complete project management responsibility for all title design engineering packages, construction management, and start-up actions The RMRS E/C/D&D organization interfaces with all RMRS organizations, K-H, and K-H subcontractors

Building Management (Non Organization Specific): RMRS shall ensure that nuclear and non-nuclear waste buildings, where RMRS is building manager, comply with the appropriate criticality and safety procedures (nuclear and non-nuclear) and infrastructures as described by Conduct of Operations, Conduct of Maintenance, and Work Control documents and that the modification or repair of systems and processes can be accomplished to allow certain treatment, packaging, transportation and/or storage functions to occur

Environmental and Material Technology Development (Waste Management Operations): RMRS shall provide services related to the development of processes and technologies for waste treatment, environmental restoration, water and soil monitoring, decontamination and decommissioning, and radioactive assay RMRS developed processes shall be integrated into existing systems to resolve complex problems related to backlogged waste, normal waste generation and future wastes generated by ER and D&D activities Development of technologies will meet existing regulatory requirements and future requirements of Site specific plans and compliance agreements RMRS shall facilitate the transfer of RFETS technologies to the private sector

Safety (RMRS ESH&Q): RMRS shall implement a behavior-based safety program that results in continuous improvements in safety performance RMRS shall ensure that activities needed to safely operate a facility such as operations management, utilities, maintenance, nuclear safety activities (some buildings), environmental compliance, health and safety practices, technical and custodial support are provided Other activities include radiological and industrial safety, As Low As Reasonably Achievable (ALARA) compliance, lockout/tagout controls, filter changes, monitoring and control rooms and vital safety systems operation, security alarms, the central and secondary alarm stations, etc RMRS shall ensure that, where required, Criticality Safety Limits (CSOLs) are complied with RMRS safety is responsible for facilitating document control, job specific safety training, and staffing, as they specifically relate to safety

4. RESPONSIBILITIES

4 1 The RMRS President is responsible for

- Establishing overall policy and management direction for the RMRS QA Program
- Serving as the final decision authority for QA issues which cannot be resolved at lower management levels
- Ensuring that contract modifications are formally reviewed to determine RMRS capabilities and effectiveness in meeting contract change

4 2 The RMRS Senior Vice Presidents are responsible for

- Developing, implementing and assessing the adequacy of controls established to meet QA Program requirements applicable to RMRS work
- Implementing the RMRS quality assurance policy and program
- Providing leadership for implementing process and quality improvement
- Defining and implementing training and qualification requirements for subordinate employees

4 3 All RMRS Vice Presidents and Management are responsible for

- Providing resources necessary to implement the QA Program
- Ensuring timely QA involvement in project/program planning, including budget and document reviews
- Complying with Site infrastructure, including quality, Price Anderson Amendments Act (PAAA), and corrective action systems
- Ensuring that QA and PAAA requirements are incorporated in documents that govern quality affecting activities, and the procurement of items and services
- Ensuring timely corrective action for identified quality problems and improvement opportunities
- Ensuring that applicable QA requirements are passed down to RMRS and lower tier contractors, as appropriate
- Providing timely response to requests for reviews of documents controlling quality affecting activities
- Performing, and not delegating, management assessment responsibilities
- Ensuring the effective implementation of business service and finance controls

4 4 The Vice President, Technical Assurance, is responsible for

- Developing and providing compliance training
- Assisting line organizations in developing PAAA notifications, responses, inspections, investigations and reports

4 5 The RMRS General Counsel, is responsible for

- Advising RMRS management concerning PAAA issues
- Participating in reviews of training materials related to PAAA
- Negotiating with K-H on intercompany PAAA issues
- Defending the company in PAAA investigations and enforcement actions

- Assisting line organizations in PAAA fact findings, and investigations

4 6 The RMRS Director, Environment, Safety & Health and Quality is responsible for

- Providing resources to the QA organization necessary to implement QA Program responsibilities
- Interfacing with RMRS senior management on quality related issues
- Assessing the adequacy of the QA Program
- Reviewing quality data to determine measures to strengthen the RMRS QA Program
- Interfacing with K-H and other subcontractors relative to QA issues

4 7 The Manager, RMRS Quality Assurance, is responsible for

- Developing, preparing and maintaining the RMRS QA Program to meet the requirements of 10 CFR 830 120, DOE Order 5700 6C, and contractually mandated requirements
- Obtaining signatory approval of the RMRS QAPD from Kaiser-Hill
- Establishing direction and guidance for defining, implementing, and maintaining the RMRS QA and PAAA Program
- Ensuring establishment of QA procedures and instructions to meet requirements of the RMRS contract and Site Quality Assurance Program
- Participating in the Site PAAA steering committee meetings
- Serving as the RMRS point-of-contact for PAAA issues
- Identifying, reviewing, and approving selected procedures to implement the RMRS QA Program
- Directing the conduct of audits and surveillances of organizations for compliance with established quality requirements and achievement of quality objectives
- Ensuring, in coordination with the responsible implementing organizations, that programs/projects which are not in compliance with the QA Program, are properly identified and corrected
- Providing organizational assistance, and indoctrination and training in quality practices, procedures, and regulations
- Supporting Design Review and Readiness Review activities
- Exercising stop work authority to control further activities when significant conditions adverse to quality require immediate corrective action
- Developing and providing periodic assessment reports on the status of the QA Program to RMRS Management and K-H
- Assigning responsibility for service as the TRU Waste QA Officer

4 8 All RMRS personnel are responsible for

- Performing activities in accordance with approved documents
- Identifying and participating in quality improvements
- Knowing customers, suppliers, and processes with which associated
- Exercising stop work authority over significant conditions adverse to quality
- Attending training

5. DEFINITIONS

Definitions are provided in the Site Quality Assurance Program Glossary of Terms, administered by K-H (Ref Site Quality Assurance Manual)

6. PROGRAM REQUIREMENTS/IMPLEMENTATION

This section of the QAPD identifies the QA elements of the RMRS QA Program and defines them in the context of implementing programs and controls While infrastructure is inferred for the activities identified in the following sections, specific procedures are identified in the Quality Assurance Program Infrastructure Documents List (Ref Site Quality Assurance Manual), which presents Site level controls available to RMRS as they align with the DOE Order 5700 6C and 10 CFR 830 120 criteria RMRS will delete, revise, and develop company specific procedures, as required, to eliminate redundancy and develop specific control strategies for implementing the RMRS QA policy and philosophy

6.1 Quality Assurance Systems and Description

Commitment to the RMRS QA Program is evidenced by the signatures affixed to the front of this QAPD The QAPD is binding on all RMRS personnel RMRS personnel understand the program's impact from training, indoctrination, periodicals, and the commitment evidenced by management This QAPD is, by design, intended to be revised, as RMRS increases efficiency and effectiveness, and as our customers continue to define requirements in the RMRS scope of work

RMRS requires that activities be appropriately planned in accordance with the provisions of this document, and that when activities deviate from planned outcomes and indicate significant conditions adverse to quality or safety, RMRS personnel are required to stop the process until corrections can be made

The RMRS QA Program, defined herein, is comprised of the RMRS contract (KH00003NS1A), this QAPD, the existing infrastructure controls listed in Quality Assurance Program Infrastructure Documents List, the QAPjP (EG&G Rocky Flats, Inc), and program specific Quality Assurance Plans and to support Nevada Test Site (NTS), Waste Isolation Pilot Plant (WIPP), and other waste recipient site's waste acceptance criteria The RMRS QA Program, while maintaining consistency with the Site QA Program, will undergo revisions to enhance overall effectiveness and alignment with the RMRS scope of work

6.1.1 Policy and Mission

The mission of RMRS at the Site is to provide environmental restoration, waste management and D&D services The highest priority of RMRS, while accomplishing the mission, is to accomplish our work in a manner that assures employee safety and value to our customers and stakeholders RMRS contends that safety, a core value, and quality are integral components to the successful accomplishment of our mission Accordingly, a rigorous Quality Assurance Program will be implemented to ensure that compliance with applicable laws, regulations, and DOE orders is achieved, and that such compliance is appropriately documented and maintained

To achieve the mission, it is the policy and commitment of RMRS to meet the needs of the Site stakeholders by providing products and services that consistently exhibit a high degree of inherent quality RMRS will also accomplish the mission in a manner that is efficient and meets the predetermined performance standards The RMRS quality policy is further defined in the RMRS Quality Assurance Program Documentation Manual

6.1.2 Management and Organization

General

Management responsibility and commitment to the RMRS QA Program is by signature to this document

The RMRS organization is depicted in Appendix B The management of each organization, in conjunction with the Human Resources Manager or designee, are responsible for hiring qualified personnel and providing any additional skills required prior to assigning the employee specific project duties Each employee shall be trained to the requirements of this QAPD

RMRS QA Organization

The RMRS QA Manager is designated by the RMRS President as the representative for quality assurance activities, and is responsible and authorized to stop work when significant conditions adverse to quality are detected The QA Manager reports directly to the RMRS ESH&Q Director, and is responsible for assessing the effectiveness and compliance of RMRS to the quality concepts, requirements, and directives identified in this QAPD and associated implementing procedures At the discretion of the QA Manager, QA issues may be directly reported and resolved with the RMRS President The RMRS QA Manager is also responsible for documenting identified deficiencies, facilitating appropriate corrective actions, verifying corrective action effectiveness, and tracking deficiencies to preclude recurrence and promote continuous improvement

The RMRS QA organization plans and performs assessments of RMRS activities and processes to determine the health and effectiveness of the RMRS QA Program and determine compliance with QA requirements Assessments are conducted by trained qualified personnel who are afforded autonomy in the RMRS organizational structure and report to the QA Manager, who may direct that assessment results be forwarded directly to the RMRS President Assessment personnel are afforded full access to records, procedures, program plans, and related matter while performing assessments

6.1.3 General Principles

In the context of the specific scope of work presented in Section 3, RMRS is contractually obligated to develop and implement a QA program that complies with DOE Order 5700 6C for all activities that are not, by definition, a nuclear activity Further, RMRS is responsible to develop and implement a QA program that complies with 10 CFR 830 120 for all RMRS activities that are, by definition, nuclear activities In addition to these requirements, RMRS identifies and implements best practices and standards to enhance the overall effectiveness of the RMRS QA Program

The RMRS QA Program is inherent with the work being performed This is accomplished during the planning of work, through the participation of quality professionals The RMRS QA Program is limited in the use of in-process inspections, since QA participation in the planning process reduces the need for inspection The primary principle supported is that the achievement of quality is embedded in the work processes, and that assessment should only be a tool for monitoring and continuous improvement

The relative similarities of the Rule and the Order precludes the need for developing separate programs for compliance Accordingly, RMRS has developed a single comprehensive program, defined herein, that establishes compliance with both requirements and differs only from the perspective of applicability and enforceability From the perspective of applicability, the distinction bounds the QA program by placing 10 CFR 830 120 on the higher risk side of the activity spectrum, and allows less stringent application of DOE Order 5700 6C controls on the activities with inherently less risk

6.1.4 Graded Approach

As indicated, RMRS follows a graded approach, developed by K-H, that is inclusive of the following considerations

- Relative importance to safety, safeguards, and security
- Magnitude of any hazard involved
- Life cycle stage of a facility
- Programmatic mission of a facility

- Particular characteristics of a facility
- Other relevant factors as deemed appropriate

To implement the graded approach, RMRS during the origination or revision of procedures, incorporates varying degrees of control, appropriate for the activity

6.2 Personnel Qualifications and Training

Personnel shall be qualified to perform their respective tasks based on a combination of related experience, education, and training Education and experience shall constitute the primary means of qualification RMRS will consider that the defensible competency of individuals performing the work is also a factor in the mitigation of risk and will include qualification as a risk mitigator in the graded approach methodology

Training shall be appropriate for the complexity and hazards of the work involved Typical training methods include computer based training (CBT), classroom instruction, required reading, and on-the-job training

Qualification requirements and training records shall be maintained and retrievable through the project managers, procurement and contractual agreements, and at a centralized training record repository, maintained and operated by RMRS

Evidence of qualification shall be established through documented records, such as sign-in sheets, certificates, transcripts, registrations, and specific training records (e g , output from training group databases)

6.2.1 Personnel

The Training User's Manual (TUM), administered and controlled by K-H, establishes the processes used by management to determine and document employee job requirements, including education, training, experience, and certifications, and for establishing qualifications RMRS currently implements the provisions of the TUM and controls company specific training activities through lower tier procedures

The qualification and training process is designed to enable RMRS to determine and document job-specific and general training requirements for each employee, and to ensure that qualifications and training are maintained current for their work assignment Training methods include formal training conducted by qualified instructors, briefings conducted by management approved personnel, required readings, workshops, seminars, and awareness training

QA indoctrination is provided to RMRS personnel as part of orientation to the Company and every two years thereafter The training is provided by the RMRS QA organization, with development support by the RMRS training organization Records of training are documented in the same manner as for other employee training, in accordance with TUM requirements Line management plans and budgets for QA training as part of work and project planning Building or Area-Specific-Training is conducted to familiarize personnel with the facilities they use, including safety, security, and support systems Additionally, mandatory training addressing environmental, safety and health, and other applicable requirements and issues are to be completed by RMRS employees

6.2.2 Quality Professionals

The RMRS QA Manager establishes requirements for the competency of individuals planning, developing, assessing, and inspecting QA related work activities Auditors, assessors, inspectors, and personnel conducting surveillances shall have training, qualifications, technical knowledge, and experience commensurate with the scope and complexity of the activities being evaluated Evidence of competency, and maintenance of competency is established and recorded under approved processes

6.3 Improvement

Several approaches shall be implemented to continuously improve the quality of RMRS products and services These approaches include the following

Management will foster a *no-fault* attitude where all personnel are encouraged to identify and report problems to the appropriate level of management for the purpose of corrective action

Management shall empower personnel to eliminate ineffective management systems and improve performance by driving decision-making authority to the lowest effective organizational level where the maximum expertise is localized

When appropriate, management will encourage the use of established management tools, such as statistical methods, to improve and substantiate confidence in program and project decision-making

Management shall track, monitor, and facilitate the disposition of quality deficiencies and improvements through interface with the RMRS Quality Condition Report (QCR) process The extent of causal analysis and corrective action shall be commensurate with the significance of the failure or problem Lessons learned shall be communicated to staff from management when appropriate

6.3.1 Problem Prevention

RMRS management prevents quality problems by the implementation of this QAPD, organizational structure, independent and management assessments, surveillance, monitoring, corrective action, and deficiency recurrence control Specifically, Quality Assurance Coordinators, matrixed to the line organizations, participate in the planning process, review work control packages prior to implementation, and conduct surveillances of work as it is being performed QA and line management monitor performance through assessments, trend analysis and periodic reports, and make adjustments to processes to continuously limit the number of item and process failures Problem prevention, while not controlled by a specific procedure, is a strategy that is facilitated through the other programs, procedures, plans and instructions defined herein, of which training and the employment of competent individuals is a key factor

RMRS subscribes to the Site lessons learned program, and uses information from the program as a means of preventing problems Additionally, RMRS fully discloses known deficiencies and occurrences as a means of supporting the prevention of similar situations in other organizations at the Site and across the DOE complex

6.3.2 Item and Process Improvement

RMRS staff identify and initiate improvement to products and services by subscribing to the management and independent assessment processes, and following the Quality Condition Report process The QA organization, provides mentoring for quality improvement techniques and methods, statistical process control and total quality management principles These services provide a comprehensive and holistic approach to overall process improvement

6.3.3 Employee Participation

Employee participation in the assurance of quality and the continuous improvement process is gained through the support of management, specific training on process improvement and process improvement tools, taking ownership of their processes, and actively seeking means to improve those processes The QA organization provides a consistent means for employing improvement methods and measuring the effectiveness of improvements These methods and approaches are promulgated to employees through training, working groups, participation on problem resolution working groups, and company newsletters

6.3.4 Control of Nonconforming Items and Activities

Items that do not meet established requirements are identified, segregated, controlled , documented, analyzed and corrected in accordance with approved procedures

Activities and processes that do not meet established requirements are identified and corrected in accordance with the corrective action process described in Section 6 3 5

6.3.5 Corrective Action

Conditions adverse to quality are identified and corrected utilizing the RMRS Quality Condition Report (QCR) system Correction may include the use of Conduct of Operations procedures, Conduct of Engineering procedures, or nonconforming items procedures Wastes being submitted for certification that do not meet certification requirements are identified through the NCR process (Ref 6 3 4), and corrected according to specific waste management approved processes The causes of deficiencies are determined, to the degree appropriate for the condition, using approved processes

When conditions adverse to quality are identified and require the cessation of operations to prevent continued deficiencies, the stop work process is initiated The process will be continued only after appropriate analysis and actions are taken to preclude recurrence of the adverse condition or appropriate controls have been initiated to mitigate potential consequences to an acceptable risk level, pending final resolution

Additionally, products or services deployed under the adverse condition will be identified and corrected as appropriate in accordance with the provisions for nonconformances

Deficiencies occurring in operations that are enforceable under PAAA, are reported to the Noncompliance Tracking System (NTS), which is administered by K-H Programmatic deficiencies related to the implementation of DOE Order 5700 6C, and 10 CFR 830 120 are identified and corrective actions designed within implementation plans

6.3.6 Trend Analysis

The RMRS QA organization is responsible for timely analysis of item and service quality Information to support trending is gained through audit reports, inspection reports, surveillance reports, corrective actions, management assessments, performance indicators, and lessons learned Trends in deficiencies are analyzed in accordance with procedures

6.3.7 Reporting

Except as may be required by compliance agreements, specific reporting requirements are based on the content of the RMRS contract (reference RMRS contract Section H 2) Provisions are included in the RMRS programs and procedures currently utilized for identification and evaluation of conditions that may be reportable to K-H and DOE

This includes reporting through corrective action systems and the DOE complex-wide PAAA Noncompliance Tracking System (NTS), administered by K-H In addition, RMRS implements the requirements and provisions of the Lessons Learned program, and the Occurrence Reporting processes, by which significant occurrences are reported, categorized, and distributed across the DOE complex to preclude recurrence at other sites

6.4 Documents and Records

Quality affecting documents, such as work plans (including Integrated Work Control Packages), standard operating procedures, health and safety plans, etc , shall be controlled, where control is constituted by the following criteria

- documents are prepared in accordance with approved processes
- documents receive the required reviews and approvals
- documents are uniquely identified and their distribution tracked,
- personnel who need the documents to perform work receive the latest approved versions of the document
- superseded or voided documents are removed from service

Essential policies, plans, procedures, decisions, data, and transactions of RMRS will be documented to an appropriate level of detail and receive management, peer, and QA reviews, as appropriate The objective shall be to maximize the utility of records and data for accomplishment of performance objectives while minimizing the cost of information management and paperwork for RMRS and its lower tier contractors

Quality records, as defined by approved processes and subordinate plans, including digital data stored electronically, are prepared and managed to ensure that information is captured and retained, retrievable, and legible Quality records resulting from direct measurements or sampling activities shall be authenticated by the originator and subsequently approved

Data that are input from quality records shall be reviewed by someone other than the data entry person, and the hard-copy must be authenticated by the reviewer Errors on quality records shall be documented and corrected in accordance with approved instructions, and information on the error and correction will be retained for trending purposes Authentication is also required for corrections Evidence of authentication is retained as a quality record

6.4.1 Document Control System

Documents that affect the quality of RMRS operations are controlled Sitewide document control is the responsibility of Dyncorp, and RMRS transmits Site-level approved documents to Dyncorp for reproduction and controlled distribution

RMRS controls company specific documents in accordance with approved procedures RMRS work and project budget documents are controlled in accordance with the existing Management Control System procedures

To ensure broad access to current infrastructure (controlled documents), RMRS has implemented a "Model Office" process, which provides a comprehensive collection of controlled documents The "Model Offices' are strategically located for access by personnel involved in RMRS operations

6.4.2 Records Administration

RMRS records, defined in procedures, compliance agreements, permits and regulations, are captured, retained, protected, indexed and maintained in accordance with approved processes Records are retained and protected by RMRS until the record is deemed appropriate for archival Except for RMRS training records, and as specifically excluded by Contract KH00003NS1A, Section H 4, records identified for archival are formally transmitted to Dyncorp of Colorado, Inc for long term storage The DOE-RFFO is responsible for the CERCLA Administrative Record

6.4.3 Computer Software and Hardware

A sitewide Software Management Program (SMP), in conjunction with specific program plans to meet NTS and WIPP requirements, implement software quality assurance controls The application of software quality assurance controls to specific software is dependent on the importance of its use Uses range from ordering office supplies to monitoring Vital Safety Systems Software control also considers costs (purchase, development, replacement, and lifetime maintenance), and the consequence of failure, impact to safety, and potential liabilities Software quality assurance is achieved through the implementation of approved procedures

6.5 Work Processes

RMRS processes and activities shall be controlled to a degree commensurate with the risks associated with the process or activity Controlled conditions shall include, as appropriate to the process, the following

- Documented and approved instructions that control processes and activities
- The use of suitable, approved equipment in a suitable, approved working environment
- Compliance with reference standards, workmanship criteria, quality plans or other requirements
- Monitoring and control of process characteristics
- Maintenance of process equipment
- Competent workers with traceable qualifications

Process qualification and product acceptance criteria are defined and documented, and are utilized for determining effectiveness of processes As processes consistently reflect improvement, in-process inspection are reduced Accordingly, when processes exhibit variations beyond specified tolerances, in-process inspections increase

Each organization, through planning and participation on teams, shall document processes and related controls within their respective programs Figure 1 depicts the application of controls in a process context

6.5.1 Planning

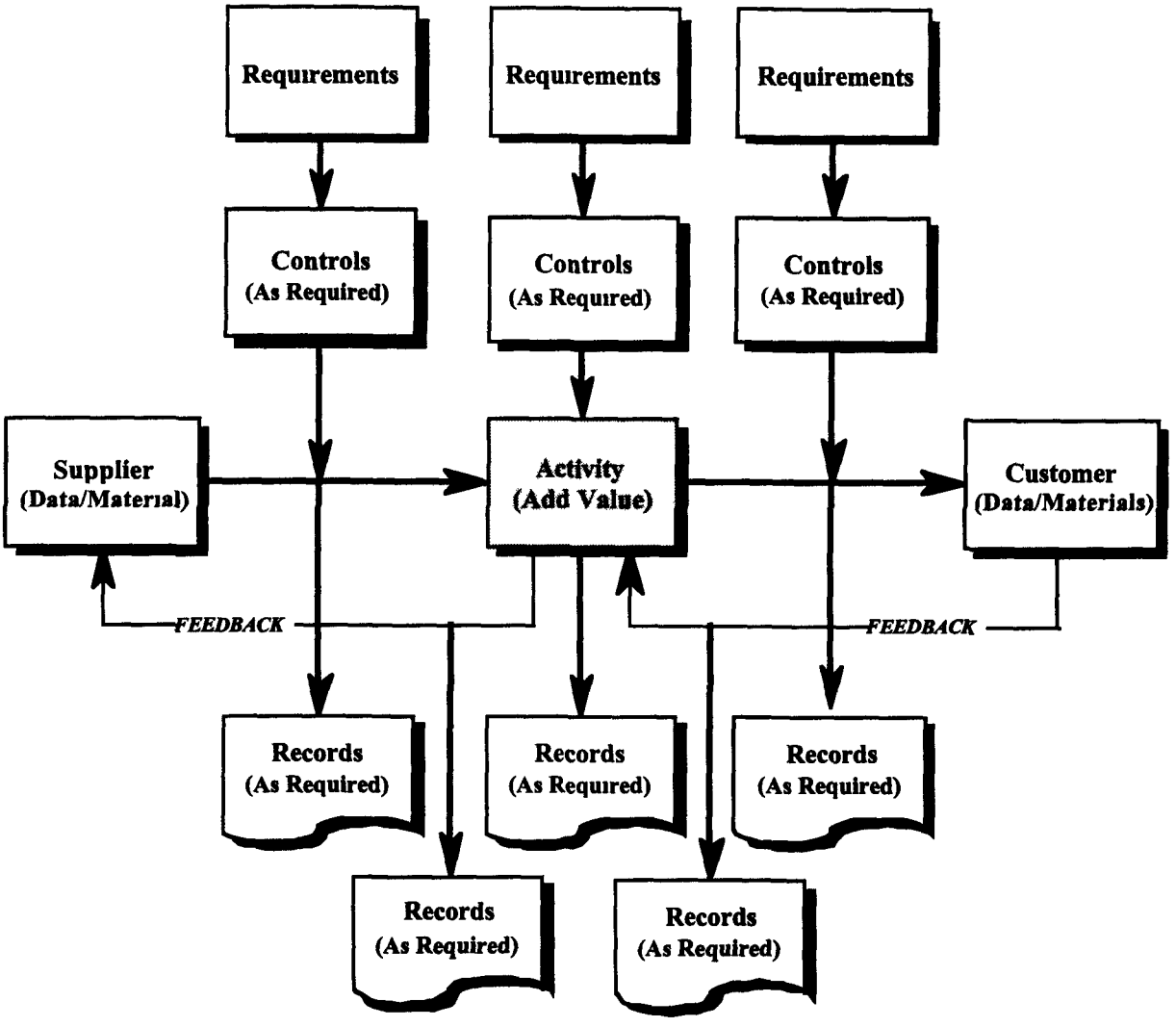
Work is planned and authorized as described in the Site Management Control System procedures and in accordance with the provisions of the RMRS contract During the budget call, RMRS identifies specific activities required to be accomplished to meet contract provisions Work activities are planned, scheduled, resource loaded, and documented in work packages that are approved and tracked, and implemented through Project Authorization Directives (PADs) Work activities are then identified and defined in the Master Activity List (MAL)

The MAL identifies activities as 1) a baseline activity necessary for performance due to the presence of hazards, 2) a mission program activity authorized for performance, 3) a mission program activity authorized for planning only, or 4) a currently unauthorized mission program activity The MAL contains the cut list of nuclear activities, however, not every listed activity is a nuclear activity

Work is planned and performed in accordance with approved processes, including the Integrated Work Control Program (IWCP) Documentation related to the conduct of work includes acceptance criteria and describe inspection/testing requirements to assure the acceptability of work Work planning and performance documents are reviewed by QA, prior to implementing the work, to ensure that customer's QA requirements are adequately addressed and appropriate QA resources to support the requirements are allocated In addition to the applicability of QA requirements, facility operations comply with the defined Authorization Basis for the operation

Each RMRS project controlling document shall reference the specific instructions that are applicable to the activities addressed in this document Line managers and work package managers include tasks and resources within work packages to achieve compliance with the customer's QA requirements In the event that an activity described in a controlling document is not adequately addressed by an existing instruction, a new instruction or a temporary or permanent change to an existing instruction shall be prepared, or controls will be specified in the approved project controlling document RMRS work processes are controlled by Site level documents identified in the Quality Assurance Program Infrastructure Documents List (Ref Site Quality Assurance Manual), and company specific plans, instructions, and procedures

Figure 1



6.5.2 Instructions and Procedures

Quality affecting activities are prescribed by and performed according to documented instructions, procedures, and drawings The methods for creating and revising procedures are controlled (Ref 6 4) Specifically, RMRS subscribes to the design control process for the development of instructions and procedures, by which specific inputs and outputs are considered Instructions provide technical and administrative directions

The extent of detail is contingent on the complexity and risk of the activity, the experience of the users, and the frequency of performance Creation and control of drawings is described in the Conduct of Engineering Manual K-H Engineering provides control and maintenance over RMRS generated design drawings Maintenance tasks are controlled under the procedures in the Integrated Work Control Program Manual Work planning and control tasks are controlled under the Management Control System procedures

6.5.3 Collection and Evaluation of Environmental Data

Activities related to the measurement and data acquisition process include collecting environmental samples, collecting D&D samples and data, and generating analytical and measurement data In order to ensure that quality data are being generated, quality control is incorporated into the sampling and analytical process through sampling and analysis plans, and field sampling Data, upon which environmental response, D&D, and area/facility/equipment release decisions will be based, must be reduced, validated, and reported in a manner that leaves the data defensible Calculations and models in which data are used to reach decisions must be completed, reviewed, and documented in a manner consistent with this QAPD Personnel performing calculations must be qualified and must document the calculation in such a manner that a qualified individual could repeat the calculation, and achieve the same results, without consulting the author

Each ER project controlling document shall include a description of the implementation process and the data quality objectives, as appropriate The document shall ensure that the activity is conducted in a manner that achieves the project goals while minimizing the cost and impacts on the worker, public health, safety, and the environment, to the extent practicable For D&D activities, which are performed under CERCLA, this is normally a D&D plan or subordinate implementation plans, and for Rocky Flats Cleanup Agreement (RFCA) activities it is the applicable work plan or treatability study Plans in support of RFCA activities must conform to this document, the RFCA requirements, and the applicable associated Environmental Protection Agency (EPA) and Colorado Department of Public Health and Environment (CDPHE) regulations and guidance documents D&D Program Plans, and related implementation plans shall be consistent with DOE Orders 5400 5 and 5820 2A, and *the DOE Decommissioning Handbook*

D&D plans shall consider the guidance in NUREG/CR-2082, *Monitoring for Compliance with Decommissioning Termination Survey Criteria*, NUREG/CR-5512, *Residual Radioactive Contamination from Decommissioning Technical Basis for Translating Contamination Levels to Annual TEDE*, and NUREG/CR-5849, *Guidance Manual for Conducting Radiological Surveys in Support of License Termination*

ER field operations and field sampling and measurement activities at the Site shall be conducted in accordance with RMRS approved instructions and plans, which meet the requirements of recognized standards and requirements documents

During the planning of specific projects, RMRS will assess the applicability and needs of the project, and in a graded fashion, apply necessary and sufficient standards and controls

Data Quality Objectives (DQOs) shall reflect the current guidance established by the EPA (EPA QA/G4), and shall be developed in the planning stage of all environmental data collection efforts The DQO process is integrated with the development of sampling and analysis plans included in the specific work controlling process Where data, not generated under the auspices or control of RMRS, is used to support ER, E/C/D, and WM operations decisions, specific verification processes will be employed to assure the data is defensible and appropriate for the application

In order to ensure that approved instructions and/or plans are being adhered to during sampling activities, environmental quality surveillances will be conducted as described in this QAPD The specific tasks and frequency of surveillances shall be determined based on the uniqueness and complexity of the specific activity, the experience of those completing the activity, the risks involved in completing the activity, and the involvement of other sources of oversight

6.5.4 Maintenance

RMRS maintenance is planned, implemented, and controlled through the Site work control processes Work control to support maintenance is initiated by building and/or operations managers who receive a notification of a deficiency through Site processes, or when a request for a modification is received Maintenance to equipment, systems, structures, and components are controlled to ensure configuration control

6.5.5 Design, Construction, and Operation of Environmental Technology

The design, construction and operation of environmental technology complies with the requirements of national standard ANSI/ASQC E4-1994 Environmental technology is either procured in accordance with the procurement sections of this QAPD, or designed and built in accordance with the provisions of the Conduct of Engineering Manual (COEM), Configuration Change Control Program (CCCP), and/or Integrated Work Control Program (IWCP)

Operation of the technology follows the work process controls that are typical for the degree of complexity and specifically comply with the requirements and implementation related to procedure development

6.5.6 Waste Operations

The generation, characterization, treatment, storage, and disposal of wastes are governed by requirements that depend upon the type of waste being generated

These requirements have been established in regulations, DOE orders, the RCRA permit, and the respective disposal site waste acceptance criteria Procedures and other controls are established to ensure that the generation and handling of wastes meet governing requirements

The Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico is the designated disposal site for TRU/TRU Mixed Waste generated at RFETS The WIPP requires specific program documents to address their QA program requirements The RFETS TRU Waste Management Plan and the RFETS WIPP TRU Waste Characterization QA Project Plan address the requirements of the WIPP QA Program Document and the WIPP Characterization QA Program Plan respectively

The Nevada Test Site (NTS) is a disposal site for RFETS low level waste NTS requires documentation of the QA program implemented to meet their QA program requirements The RFETS Low Level Waste Management Plan contains the QA program that addresses these requirements

The RFETS TRU Waste Management Plan, the RFETS WIPP TRU Waste Characterization QA Project Plan, and the RFETS Low Level Waste Management Plan are maintained by RMRS These plans detail specific QA programs implemented for the requirements of specific waste streams These plans are sub-tier plans to the RMRS QAPD

Characterization of wastes is performed according to approved instructions either through process knowledge or laboratory analysis Waste sampling and analysis plans are developed for wastes to be characterized through analysis Sampling and analysis plans ensure that the quality of the data collected for characterization meets the requirements of specified standards DQOs, in accordance with the EPA guidance and promulgated through the Waste Stream and Residue Identification and Characterization (WSRIC) program, are established for measurement data The radioactive content of wastes is determined through assay operations that use calibrated equipment (Ref 6 8 4) Process knowledge of waste streams is maintained through documentation that is formally controlled and revised

Process control plans are developed for waste generating processes where subsequent inspection can not verify the quality of the product

Packaging of wastes is controlled through procedures that ensure wastes are properly identified and segregated to allow for certification and shipment to appropriate disposal Sites Sanitary waste is shipped to the Site landfill Certain wastes are reviewed for disallowable contents through real time radiography examination Wastes are stored in controlled areas depending upon the requirements for that type of waste The inventory of wastes stored is established and maintained through a computerized database Instructions ensure the status of the hardware and software in the system

Procedures governing the characterization, storage, treatment, and shipment of wastes result in the creation of records that provide traceability of the wastes These quality records are controlled and processed in accordance with the provisions of section 6 4 2, Site records processes, and requirements of the site receiving the waste

6.5.7 Transportation and Shipment of Waste

The K-H Traffic Department has programmatic responsibility for the quality and regulatory compliance with respect to transfer and shipping, and transportation of waste materials The Rocky Flats Transportation Safety Manual which includes the On-Site Transportation Manual and the Off-Site Transportation Manual provide shipping and transfer requirements and instructions RMRS provides proper packages for on-site and off-site shipments and provides information for the hazardous waste manifest

6.5.8 Decontamination and Decommissioning

D&D project control documents shall ensure that the activity is conducted in a manner that achieves the project goals while minimizing the cost and impacts on the worker and public health and safety, the work, and the environment, to the extent practicable For D&D activities, the project controlling documents are normally a D&D plan, and subordinate implementing plans that cover specific subject areas For example, the DQO management plan, the Quality Assurance Project Plan, RFCA/CERCLA documents, etc

D&D plans shall be consistent with DOE Orders 5400 5 and 5820 2A, and the *DOE Decommissioning Handbook* D&D plans shall consider the guidance in NUREG/CR-2082, *Monitoring for Compliance with Decommissioning Termination Survey Criteria*, NUREG/CR-5512, *Residual Radioactive Contamination from Decommissioning Technical Basis for Translating Contamination Levels to Annual TEDE*, and NUREG/CR-5849, *Guidance Manual for Conducting Radiological Surveys in Support of License Termination* D&D plans include a description of the checks and balances that are used during execution of work to ensure compliance with work control documentation and acceptance criteria

6.6 Design

Sound engineering and scientific principles, and appropriate technical standards shall be incorporated into designs to assure intended performance The Site infrastructure programs provide controls for the design of items and processes Design work includes incorporation of applicable requirements and design bases, identification and control of design interfaces, and verification or validation of the adequacy of design products by individuals or groups other than those who performed the work The verification and validation is completed before approval and implementation of the design

The design control processes are established for the control of design inputs, outputs, verifications, reviews, changes, modifications, and configuration change control Design control requirements for procured design and engineering services are incorporated into procurement specifications The design control program provides documented controls that ensure design interfaces between participating and interacting design organizations Controls include relative responsibilities, reviews, design basis, deliverables, and associated concurrence and approvals

RMRS shall follow the DQO process for data acquisition and sampling activities as delineated in EPA QA/G4 Both the EPA and the DOE Office of Environmental Management (1994) have established the DQO process as policy (EPA QA/R-5 and DOE correspondence, 1994, respectively) for determining the types, quality, and quantity of data needed for environmental and waste management decision-making, while optimizing time and cost considerations

Design control of computerized systems shall be commensurate with the risks associated with the process that the computer system controls Systems controlling critical health and safety processes shall be verified and validated under simulated working conditions, prior to actual usage Such systems shall be tested periodically to ensure functionality

All facility changes result in revisions to applicable design Design changes and modifications are reviewed, concurred with, and approved by the same organizations, or acceptable alternates, that reviewed, concurred with, and approved the original design

The Conduct of Engineering Manual (COEM) and Configuration Change Control Program (CCCP) provide controls to ensure that documents and records are maintained to provide evidence of the acceptability of the design and configuration

Design records are maintained to support the basis and activities of the design process Design records include design input basis documents, calculations, approved drawings and their revisions, computer software programs, analysis documentation, and prototype testing data Documents that support the design configuration and the final performance are verified and retained Design records are controlled in accordance with section 6 4 2, except design drawings are maintained by K-H Engineering (Ref 6 5 2)

Analyses are conducted to validate designs and ensure that correct input data and assumptions are incorporated into the program Design analyses verify correct solutions to physical problems are produced within predetermined limits The Software Management Program requires that design software, and any changes thereto, be documented, concurred with, and approved by qualified technical personnel The requirements for computer testing are documented in software development plans and procedures

Final designs, such as documents, drawings, quality records, or computerized data, shall undergo validation through independent reviews Independent peer reviews are performed and documented by qualified individuals or groups other than those that prepared the original design

The reviewer may be from the same organization as long as the reviewer did not provide input to the original design The reviewer may be a supervisor, if other design personnel are not available, and if the supervisor did not perform original design calculations Verification methods include, but are not limited to, design reviews, alternate calculations, and qualification testing Verifications are not duplicated for multi-use items intended for the same application The extent of design verifications is based on complexity and importance to safety and reliability Reviews shall be commensurate with the scale, cost, specialty, and hazards of the item or activity in question Management approval, in addition to peer and quality reviews of designs, shall be obtained prior to procurement, manufacture, or construction Peer and quality reviews are conducted and documented through the comment resolution process

Qualification testing procedures are established as necessary to verify or validate acceptability of design features These procedures require equipment to be tested under normal and abnormal operating conditions

Designs related to special processes, in addition to the requirements of this QAPD, receive additional control consideration Special processes, including welding, heat treating, nondestructive examination, chemical decontamination, etc , must be controlled to a more stringent level, since the resulting quality may not be verifiable without destruction or degradation of the product Special processes, while controlled by the Site work control process, must be identified by the organization originating the project Controls shall be developed in accordance with section 6 5 2 The process, utilizing the approved controls, will be implemented by individuals specifically qualified for the process, in accordance with section 6 2

6.7 Procurement of Items and Services

RMRS shall design and implement a procurement and subcontracts system that complies with the appropriate protocols required by the system developed by K-H RMRS, to be consistent with the present procurement system of K-H, employs procurement levels defined in the Site controls for purchased items and services

RMRS personnel requisitioning items and services are responsible for identifying the requirements and acceptance criteria for the items and services

6.7.1 Procurement Documents

Procurement documents, except those related to office supplies, receive a documented independent quality review, by RMRS, to assure incorporation of appropriate quality assurance requirements, and additional requirements such as 10 CFR 830 120, and health and safety requirements The RMRS QA organization reviews procurement documents to ensure that the requirements for items and services are clearly depicted, including specific performance requirements

Procurement documents for hardware are retained and administered by K-H Procurement documents for services, other than normal maintenance agreements for services, are retained and administered by RMRS in accordance with approved procedures

6.7.2 Supplier Selection

All Procurement Level 1 (PL-1) procurements will be purchased from suppliers listed in the Site Approved Supplier Listing (ASL), maintained by K-H On-site evaluation of suppliers for consideration of adding them to the ASL is performed by K-H, with input and participation of the requisitioning RMRS organization RMRS also provides specification input for procurements and develops acceptance criteria to support the dedication process

RMRS takes full advantage of third party certifications and other supplier audits through the use of the Supplier Quality Information Group (SQIG)

6.7.3 Acceptance of Items and Services

RMRS employs methods for the acceptance of items and services that include observation of selected operations at vendor facilities, post-installation testing, dedication, certificate of conformance, receiving inspection by Dyncorp, surveillance or audit, and verification of data RMRS, in accordance with approved processes and guidance, selects the acceptance criteria based on the procurement levels identified in 6 7 Items and services not meeting performance requirements are identified and controlled in accordance with section 6 3 4

6.7.4 Fraudulent Material

Any incidence of fraudulent material found at the Site is required to be appropriately dispositioned in accordance with the nonconforming item controls Additionally, these instances are to be reported through the Occurrence Reporting Process, and to the Inspector General

6.7.5 Identification and Control of Items

RMRS employs Site control systems for identification, maintenance, and control of items, including consumables The controls ensure that items are properly labeled, tagged, or marked, and that only appropriate items are used for the application When physical marking is unachievable, item identification is facilitated through serial number or other traceable means Site controls ensure that items are identified, handled, stored, transferred, and shipped in a manner that prevents loss, damage, or deterioration

6.8.3 Status Indicators

The status of items is conveyed through various programs and processes and ensure that items are fit for service or have been appropriately controlled to preclude use The Sitewide Plant Action Tracking System (PATS) and the RMRS corrective action process provides status indicators for programs, while the process for nonconforming products preclude the inadvertent use of hardware that is not acceptable or within prescribed tolerance The calibration program, administered by Dyncorp of Colorado Inc , ensures that measuring and test equipment are calibrated and that the calibration status is clearly indicated The respective programs contain provisions for tagging, logging, and other visual displays as may be required

6.8.4 Measuring and Test Equipment

RMRS controls measuring and test equipment used to verify process parameters and verify specification performance during in-process and final inspections Control is inclusive of calibration, maintenance, and accountability RMRS subscribes to Site-level approved processes for control of M&TE

Measuring and test equipment are calibrated at regular intervals, or when damage is suspected that may result in the M&TE being out of tolerance The M&TE calibration program, administered and staffed by Dyncorp of Colorado, Inc provides calibration of equipment to standards that are traceable to national standards

M&TE found to be out of tolerance are tagged *out of service* and segregated to preclude use Evaluations are conducted and documentation is prepared to validate previous inspections, tests, and the acceptability of items for which the out-of-tolerance M&TE was used

6.8.5 Waste Inspection

Radioactive and mixed wastes, generated at the Site are inspected at defined hold-points, using approved procedures Qualification and technical direction of waste inspectors is provided by the RMRS QA organization Procedures used incorporate all relevant waste repository and Site requirements, including defined acceptance criteria

Inspections consist of a review of the waste package documentation for completeness and accuracy, and observation and verification of waste packaging activities to applicable procedures and requirements documents Nonconformances are documented, tracked and resolved in accordance with approved processes

6.9 Assessment Program

RMRS shall establish and maintain an assessment program and procedures for planning and implementing assessments Assessments are broadly construed to be inclusive of audits, surveillance, inspections, reviews, evaluations, appraisals, and process monitoring

Assessments are scheduled based on the risk and QA performance indicators of the activities being conducted Except for management assessments, assessments are conducted by independent RMRS personnel qualified to assess the area being considered The results of assessments are documented, brought to the attention of appropriate RMRS management, and are tracked to verify development and effective implementation of corrective actions In accordance with DOE Order 5700 6C, the RMRS QA system will be fully assessed on an annual basis

6.9.1 Integration

RMRS integrates the full scope of assessments into a single plan that encompasses the varying degree of assessment rigor, and takes into account assessments being performed by various stakeholders The RMRS QA organization, responsible for conducting assessments other than management assessments, develops an annual plan that ensures the greatest value from assessment resources by utilizing the appropriate assessment format and preventing duplicate assessments

6.9.2 Monitoring and Surveillance

As previously indicated, the RMRS QA organization consists of personnel who participate at the line level and are matrixed to the line organizations These personnel conduct monitoring and surveillance activities as a continuous barometer of quality requirement compliance and implementation Surveillances, a less formal means of assessment, are planned and conducted in accordance with approved instructions Personnel conducting surveillances are qualified in the areas being surveilled

6.9.3 Management Assessments

RMRS management shall periodically evaluate the organization to determine the effectiveness of the RMRS QA Program and overall RMRS organization performance These assessments shall be conducted by management and not delegated Management assessments are documented through reports, periodic status reports, or other suitable reporting mechanisms

Line and senior management periodically assess their operations to determine the adherence to the Quality Assurance Program Improvements or corrections to operations and performance are documented and implemented The RMRS Management Assessment Program provides the methodology, and the RMRS Quality Condition Report (QCR) provides the methodology for documenting findings and implementing corrective actions

6.9.4 Independent Assessments

Independent assessments, in contrast to management assessments, are performed by personnel who are in an RMRS organization separate from the organization/activity under evaluation for the purpose of maximizing objectivity

Independent assessments

- are based on the RMRS QAPD, and other controlling documents as necessary
- evaluate and measure the performance of work, item, and service quality beyond the mere review of documents and records
- act as management advisory functions
- are conducted such that the organization being assessed is the *customer* of the assessment results
- produce useful feedback on RMRS assets and liabilities with respect to the RMRS mission and performance objectives

The ESH&Q organization within RMRS, afforded autonomy and sufficient authority by the President of RMRS, performs assessments to determine the performance and degree of item and service quality achieved through implementation of the RMRS QA Program These assessments are coordinated and scheduled to avoid duplication of external independent assessments RMRS assessments may be scheduled by management to determine the adequacy of performance in particular areas of operations prior to evaluations by other organizations Findings are addressed through the RMRS Quality Condition Report (QCR) process and are evaluated in accordance with cause analysis and lessons learned programs, as required

The K-H organization performs oversight of RMRS activities, and assesses operations to independently determine the status of implementation and effectiveness of the RMRS QA program The methods for these assessments and the qualifications of the assessors are as described in approved procedures

7. REFERENCES

The following references are utilized as sources for obtaining appropriate control requirements and should not be inclusively construed as applicable to all RMRS operations As indicated in this QAPD, RMRS will, during the planning of specific activities, assess and adopt the necessary and sufficient standards

DOE Order 5700 6C, Quality Assurance, August 21, 1991

DOE-ER-STD-6001-92, Implementation Guide for Quality Assurance Programs for Basic and Applied Research

10 CFR 830 120, Quality Assurance Requirements, May 1994

10 CFR 820, Procedural Rules for DOE Nuclear Activities, August 1993

DOE, 1994 T P Grumbly Memorandum to Distribution, Institutionalizing the Data Quality Objectives Process for EM's Environmental Data Collection Activities, September 7, 1994

EPA, 1994a EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations, EPA QA/R-5, Quality Assurance Management Staff

EPA, 1994b Guidance for the data quality objectives process, EPA QA/G-4

EPA, 1994c Guidance for the data quality analysis process, EPA QA/G-9

Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs, ANSI/ASQC E4-1994, January 1994

DOE Order 490, General Environmental Protection Program, DRAFT, March 1995

Implementation Guide for use with DOE Order 490 General Environmental Protection Program, DRAFT, March 1995

NUREG/CR-5849, Manual for Conducting Radiological Surveys in Support of License Termination, DRAFT June 1992

ASTM C1009, Standard Guide for Establishing A Quality Assurance Program for Analytical Chemistry Laboratories Within the Nuclear Industry, 1989

NVO-325, Nevada Test Site (NTS) Defense Waste Acceptance Criteria, Certification, and Transfer Requirements, latest release for low level waste (LLW) processing, handling, and transportation to NTS

Envirocare Material Acceptance Process Manual

U S Department of Energy, "Waste Acceptance Criteria (WAC) for the Waste Isolation Pilot Plant," WIPP/DOE-069, April 1996

U S Department of Energy, CAO, "Transuranic Waste Characterization QAPP," CAO-94-1010

U S Department of Energy, "Quality Assurance (QA) Plan for the Transportation and Receipt of Transuranic (TRU) Waste," DOE/WIPP 89-102, February 1990

U S Department of Energy, Carlsbad Area Office, Quality Assurance Program Document, CAO-94-1012, April 1996

RFETS WIPP Transuranic Waste Characterization Program QAPjP, 95-QAPjP-0050

DOE 1324 2A, Records Disposition, latest release

DOE 5400 1, General Environmental Protection Program, latest release for CERCLA investigations

Final Rocky Flats Cleanup Agreement, 7/19/96

SW-846, Test Methods for Evaluating Solid Waste Physical/Chemical Methods (Laboratory Manual), latest release for waste characterization sampling analysis and statistical modeling

Part IV of the RCRA Part B permit, Resource Conservation and Recovery Act, latest release

10 CFR 71, Subpart H, Quality Assurance, latest release for user's of the TRUPACT-II vessel and for any other radioactive waste package required to be licensed by the Nuclear Regulatory Commission (NRC)

DOE/HR-0066, Total Quality Management Implementation Guidelines, December 1993

RMRS Contract with Kaiser-Hill No KH00003NS1A, July 1995

Kaiser-Hill Team Quality Assurance 10 CFR 830 120 Implementation Plan, August 1996

Contents of the Site Quality Assurance Manual

Kaiser-Hill Quality Assurance Mission and Vision, February 1996

Kaiser-Hill Quality Assurance Program, August 1996

Kaiser-Hill Quality Assurance Program Glossary of Terms, February 1996

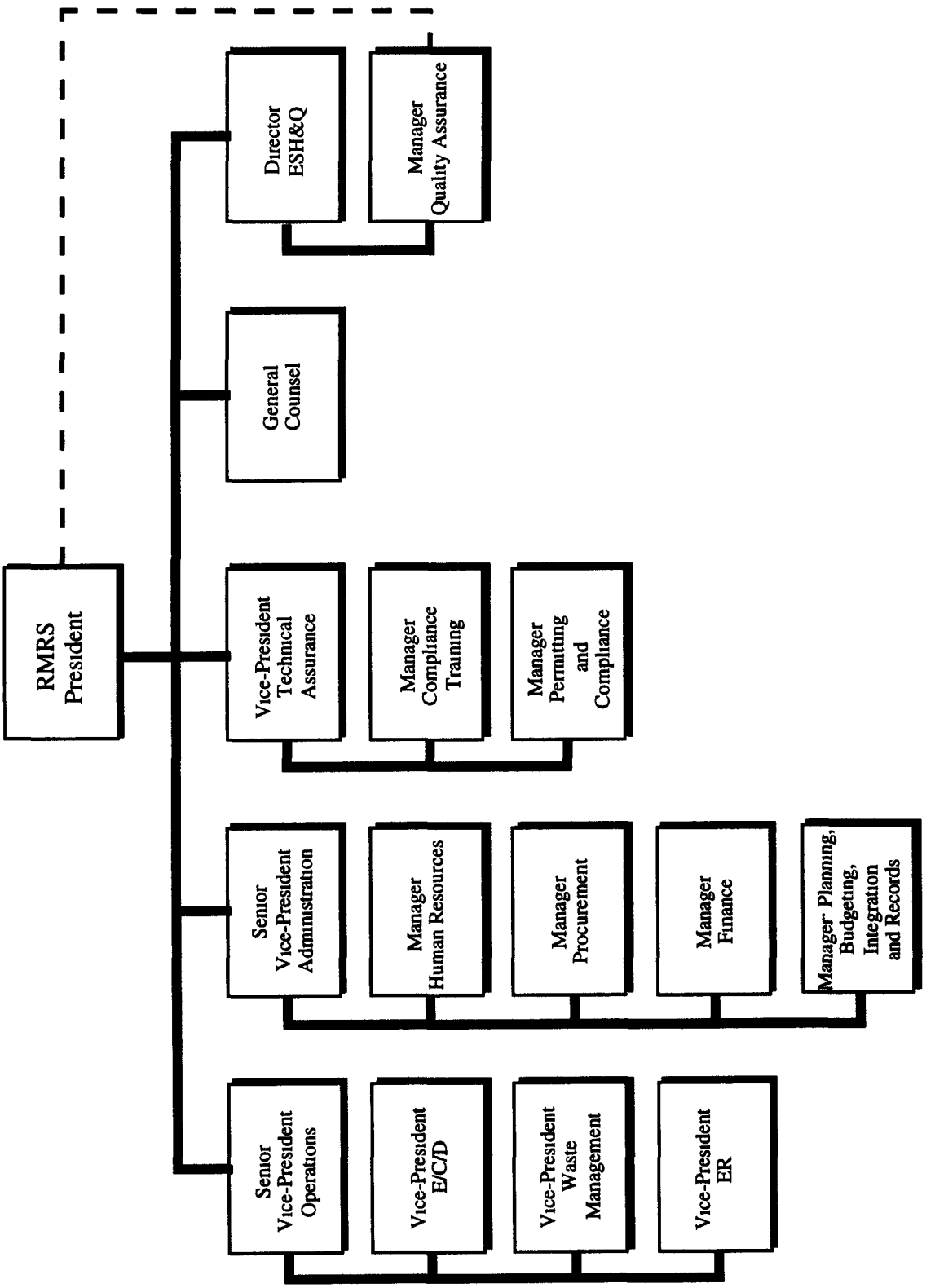
Kaiser-Hill Quality Assurance Program Infrastructure Documents List, May 1996

Kaiser-Hill Quality Assurance Program Criteria, August 1996

Master Activity List

RMRS Quality Assurance Program Documentation Manual

Appendix A - RMRS RFETS Project Organization*



* This Organization Chart is provided for clarification and responsibility assignment within the QAPD
Refer to the controlled version maintained by RMRS Human Resources